

Notice of Allowability

Application No.

09/667,732

Applicant(s)

TSUMURA, NAOKI

Examiner

Eric Chang

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone interview on September 27, 2005.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Paul Teng on September 29, 2005.

3. The application has been amended as follows:

4. In the claims:

Replace claim 6 with:

-- 6. A communication terminal apparatus connected to an analog communication network, the apparatus comprising:

line interface means for connecting to the analog communication network, controlling the network, converting analog data comprising network control and monitor signals and a modulated signal received from the network into digital data, and converting digital data comprising network control and monitor signals and a modulated signal for transmitting to the network into analog data;

digital signal processing means comprising a network control signal processing section that receives network control and monitor signals from the line interface means and a modulation and demodulation processing section that receives a modulated digital signal from the line interface means and transmits a modulated digital signal to the line interface means;

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isolating means disposed functionally between the line interface means and the digital signal processing means, for electrically isolating the network control and monitor signals and the modulated digital signals; and

means for carrying out the operation of the line interface means and the network control signal processing section of the digital signal processing means and suspending the operation of the modulation and demodulation processing section of the digital signal processing means so as to be into a power-saving state when a predetermined power-saving state change factor has occurred in a normal operating state, and resuming the suspended operation of the modulation and demodulation processing section of the digital signal processing means when an incoming call signal is received by the line interface means and processed by the network control signal processing section of the digital signal processing means during the power-saving state,

wherein in the power-saving state the network control signal processing section of the digital signal processing means remains in operation and powered. --.

Replace claim 7 with:

-- 7. A method for controlling a communication terminal apparatus connected to an analog communication network, the method comprising:

waiting for an incoming call from the analog communication network for a predetermined period;

carrying out an operation of a network control signal processing section of a digital signal processor of said communication terminal apparatus and suspending an operation of a modulation and demodulation processing section of the digital signal processor in a power-saving state, when the predetermined period has passed without the communication terminal apparatus being in operation, wherein in the power-saving state the network control signal processing section remains in operation and powered;

resuming the suspended operation of modulation and demodulation processing when an incoming call from the analog communication network arrives at the communication terminal apparatus;

receiving a modulated analog signal from the analog network;

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converting the received modulated analog signal into a received modulated digital signal;
electrically isolating the received modulated digital signal in a digital signal region;
demodulating the isolated received modulated digital signal into demodulated digital data. --.

Replace claim 8 with:

-- 8. A method of controlling a communication terminal connected to an analog communication network comprising:

providing as a part of the communication terminal a digital processor having a network control signal processing subsystem and a modulation subsystem that, when in an active state, demodulates information received from the analog communication network and modulates information for transmission to the analog network system;

electrically isolating network control signals from the analog communication network on the one hand and said modulation subsystem on the other hand;

selectively providing a first control signal indicative of a desired change of the communication terminal from a normal state to a waiting state and, in response thereto, changing said modulation subsystem from an active state in which it demodulates information received from the analog communication network and modulates information for transmission to the analog communication network to a power-saving suspended state in which it consumes less power than in the active state, wherein in the power-saving state the network control signal processing subsystem remains in operation and powered;

selectively providing a second control signal indicative of a desired change of the communication terminal back to its normal state and, in response thereto, changing said modulation subsystem back to its active state for receiving and demodulating information from the analog communication network and for modulating and sending information to the analog communication network;

thereby saving power by selectively suspending the operation of said modulation subsystem while retaining an ability to change back to an active state thereof when needed to

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receive and demodulate information from and to modulate and send information to the analog communication network. --.

Replace claim 12 with:

-- 12. A communication terminal connected to an analog communication network and comprising:

a digital signal processor having configured to include a network control signal processing subsystem and a modulation subsystem that, when in an active state, demodulates information received from the analog communication network and modulates information for transmission to the analog network system;

an isolation circuit disposed functionally between the analog communication network and the modulation subsystem and configured to electrically isolate network control signals from the analog communication network on the one hand and said modulation subsystem on the other hand;

a source of a first control signal indicative of a desired change of the communication processor from a normal state to a waiting state;

a first control circuit coupled to said source of the first control signal and said modulation subsystem and configured to respond to the first control signal by changing said modulation subsystem from an active state in which it demodulates information received from the analog communication network and modulates information for transmission to the analog communication network to a power-saving suspended state in which it consumes less power than in the active state, wherein in the power-saving state the network control signal processing subsystem remains in operation and powered;

a source of a second control signal indicative of a desired change of the communication terminal back to its normal state;

a second control circuit coupled with said source of the second control signal and said modulation subsystem and configured to respond to the second control signal by changing said modulation subsystem back to its active state for receiving and demodulating information from

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the analog communication network and for modulating and sending information to the analog communication network;

thereby saving power by selectively suspending the operation of said modulation subsystem while retaining an ability to change back to an active state thereof when needed to receive and demodulate information from and to modulate and send information to the analog communication network. --.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Chang whose telephone number is (571) 272-3671. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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